

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-40 (Canceled).

Claim 41 (New): A recombinant vector, comprising:
a polynucleotide comprising a cis-acting central initiation region (cPPT) and a cis-acting termination region (CTS), wherein the cPPT and CTS are of retroviral-like origin and derived from a retrotransposon;
a defined nucleotide sequence (transgene or sequence of interest);
and regulatory signals for reverse transcription, expression, and packaging,
wherein said regulatory signals are of retroviral or retroviral-like origin.

Claim 42 (New): A recombinant vector according to claim 41, wherein the transgene or the sequence of interest is contained in an expression cassette comprising regulatory signals for transcription and expression.

Claim 43 (New): A recombinant vector according to claim 41, wherein the regulatory signals for reverse transcription, expression, and packaging, and the polynucleotide comprising the cPPT and CTS regions are derived from an HIV-type retrovirus.

Claim 44 (New): A recombinant vector according to claim 43, wherein the HIV-type retrovirus is HIV-1 or HIV-2.

Claim 45 (New): A recombinant vector according to claim 41, wherein the polynucleotide is a DNA sequence comprising the cis-acting central initiation region (cPPT) and the termination region (CTS) of an HIV-1 retroviral genome.

Claim 46 (New): A recombinant vector according to claim 41, wherein the polynucleotide comprises the cPPT and CTS regions of a sequence which may be selected from the sequences shown in FIG. 11 or one of these sequences, mutated by deletion or insertion of one or more nucleotides, provided that the polynucleotide permits the formation of a triplex on reverse transcription of the vector under the control of suitable regulatory elements.

Claim 47 (New): A recombinant vector according to claim 41, wherein the gag, pol, and env sequences are derived from sequences of an HIV retrovirus.

Claim 48 (New): A recombinant vector according to claim 48, wherein the HIV retrovirus is HIV-1 or HIV-2.

Claim 49 (New): A recombinant vector according to claim 41, wherein the gag and pol sequences are derived from the sequences of an HIV retrovirus and the env sequence is derived from a different HIV retrovirus or from a virus.

Claim 50 (New): A recombinant vector according to claim 41, wherein the regulatory signals for reverse transcription, expression and packaging, and the polynucleotide comprising the cPPT and CTS regions are derived from a yeast retrotransposon.

Claim 51 (New): A recombinant cell comprising a vector according to claim 41.

Claim 52 (New): A method of ex vivo transfection or ex vivo transduction of non-mitotic differentiated cells, comprising transfecting or transducing the recombinant vector as claimed in claim 41 into non-mitotic differentiated cells.

Claim 53 (New): A method of ex vivo transfection or ex vivo transduction of primary cells or immortalized cell lines, comprising transfecting or transducing the recombinant vector as claimed in claim 41 into primary cells or immortalized cell lines.

Claim 54 (New): A polynucleotide comprising a nucleotide sequence of about 98 nucleotides, wherein said nucleotide sequence is from an HIV genome, wherein said nucleotide sequence is flanked on one side by a cis-acting central initiation nucleotide sequence (cPPT) comprising at least 10 nucleotides and on the other side by a cis-acting central termination nucleotide sequence (CTS) comprising at least 15 nucleotides, and wherein said polynucleotide comprises a segment of single-stranded or double-stranded polynucleotides.

Claim 55 (New): A polynucleotide according to claim 54, wherein the HIV genome is an HIV-1 genome.

Claim 56 (New): A method of *in vivo* transduction, comprising providing a recombinant vector or a polynucleotide as claimed in claim 41 and transducing the recombinant vector or a polynucleotide *in vivo*.

Claim 57 (New): The method of claim 56, wherein the *in vivo* transduction further comprises injection of the recombinant vector or a polynucleotide into a tissue.

Claim 58 (New): A polynucleotide according to claim 55 combined with a nucleotide sequence of interest or with a transgene.

Claim 59 (New): A recombinant retroviral vector particle, comprising:

- (a) a gag polypeptide corresponding to a nucleoprotein of a lentivirus, or to a functional polypeptide derivative (GAG polypeptide);
- (b) a pol polypeptide constituted by the RT, PRO, and IN proteins of a lentivirus, or a functional polypeptide derivative (POL polypeptide);
- (c) an envelope polypeptide or a functional polypeptide derivative (ENV polypeptide); and
- (d) a recombinant nucleotide sequence, comprising:

a defined nucleotide sequence (transgene or a sequence of interest), placed under the control of regulatory signals for transcription and expression; a sequence containing regulatory signals for reverse transcription, expression, and packaging, wherein the regulatory signals are of lentiviral origin; and a polynucleotide comprising a cis-acting central initiation region (cPPT) and a cis-acting termination region (CTS) of lentiviral origin, inserted in a functional orientation with said regulatory signals of retroviral or retroviral-like origin.

Claim 60 (New): A recombinant retroviral vector particle according to claim 59, wherein the regulatory signals for reverse transcription, expression, and packaging, and the polynucleotide comprising the cPPT and CTS regions are derived from an HIV-type retrovirus.

Claim 61 (New): A recombinant vector according to claim 60, wherein the HIV-type retrovirus is HIV-1 or HIV-2.